

Amendment to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-5. Cancelled.

Claim 6. (Currently Amended) A rubber mixture comprising one or more rubbers with 0.1 to 2 wt.% of bonded carboxyl groups or their salts and a glass transition temperature in the range from -120° to -50°C and one or more fillers in the range 10 to 500 parts by wt., with respect to 100 parts by wt. of rubber, wherein the rubber mixture is prepared by reacting one or more rubbers with carboxylmercaptans of the general formula (I)



in which

R¹ represents a linear, branched or cyclic C₂-C₃₆ alkylene group, which may optionally be substituted with up to 3 further carboxyl groups, or which may be interrupted by nitrogen, oxygen or sulfur atoms, or a C₆-C₁₂-arylene group

and

X represents hydrogen or a metal or ammonium ion,

optionally in the presence of radical starters.

Claim 7. (Previously Presented) A rubber mixture according to Claim 1, wherein said rubber is formed from diolefins.

Claim 8. (Currently Amended) A process for preparing a rubber with 0.1 to 2 wt.% of bonded carboxyl group comprising the step, after polymerization in solution, of reacting rubber with carboxylmercaptans of the general formula (I)



in which

R¹ represents a linear, branched or cyclic C₁-C₃₆ alkylene group, which may optionally be substituted with up to 3 further carboxyl groups, or which may be interrupted by nitrogen, oxygen or sulfur atoms, or a C₆-C₁₂-arylene group

and

X represents hydrogen or a metal or ammonium ion,

optionally in the presence of radical starters, wherein the rubber has a glass transition temperature in the range from -120° to -50°C.

Claim 9. (Currently Amended) Molded items comprising rubber mixtures ~~which comprise one or more rubbers with 0.1 to 2 wt.% of bonded carboxyl groups or their salts and a glass transition temperature in the range from -120° to -50°C and one or more fillers in the range 10 to 500 parts by wt., with respect to 100 parts by wt. of rubber according to Claim 1.~~

Claim 10. (Currently Amended) Tires comprising rubber mixtures ~~which comprise one or more rubbers with 0.1 to 2 wt.% of bonded carboxyl groups or their salts and a glass transition temperature in the range from -120° to -50°C and one or more fillers in the range 10 to 500 parts by wt., with respect to 100 parts by wt. of rubber. according to Claim 1.~~

Claim 11. (New) A rubber mixture according to Claim 1, wherein the carboxylmercaptan is 2-mercaptopropionic acid (thiolactic acid), 3-mercaptopropionic acid, 4-mercaptobutyric acid, mercaptoundecanoic acid, mercaptooctadecanoic acid, 2-mercaptosuccinic acid, their alkali and alkaline earth metal or ammonium salts, or mixtures thereof.

Claim 12. (New) A rubber mixture according to Claim 11, wherein the carboxylmercaptan is 3-mercaptopropionic acid, mercaptobutyric acid, 2-mercaptosuccinic acid 2- and 4-mercaptobenzoic acid, their lithium, sodium, potassium, magnesium, calcium or ammonium salts or mixtures thereof.